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# **Preparedness to teach: The perceptions of Saudi female pre-service mathematics teachers**

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**Fatimah Ibrahim Alsaleh**

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## Abstract

Being well prepared and experiencing a sense of preparedness for teaching is a key learning outcome of any initial teacher education (ITE) program. In order to understand more about the nature, development, and sufficiency of mathematics teacher readiness to teach, this study explores the phenomenon of preparedness. The aim of this study was to investigate how well Saudi pre-service teachers (PSTs) feel prepared to teach mathematics at secondary or middle schools (i.e. to explore their sense of preparedness to teach), delving into the nature and origins of that sense.

The participants in the study were a sample of female mathematics PSTs (N=105), who were near the end of their teaching methods course in the final year of their 4-year education degree. The construct of preparedness was operationalized through a survey of PSTs' efficacy to teach mathematics and an interview-based exploration of the factors influencing these perceptions. The data were collected over 4 months from 2015 to 2016. The quantitative data were analysed in SPSS and thematic analysis was used to analyse the qualitative data.

The key findings of this study indicated that for the PSTs, being prepared to teach means having teaching efficacy, good knowledge for teaching, a sense of preparedness, and professionalism. However, PSTs are not fully aware of all the kinds of knowledge needed for being prepared. The study showed that PSTs were generally confident that they were sufficiently prepared to teach. They felt most confident in the areas of content knowledge (CK) and pedagogical knowledge (PK) rather than pedagogical content knowledge (PCK). The findings showed that the PSTs felt inadequately prepared in some aspects of their teaching roles, and needed more support and guidance from their university-school communities. The majority felt that classroom and behaviour management was the aspect in which they felt least prepared. They also expressed only a moderate level of general teaching efficacy (GTE), expressing a lower sense of efficacy relating directly to supporting students as learners. These were related to the disjunction between theory and practice that resulted from the two most influential factors shaping PSTs' sense of preparedness and feelings of efficacy: the practicum experience and the ITE. Although these factors had positive impacts on their perceptions, they also expressed how the classroom environment, challenges, and school culture encountered during the practicum had lowered the PSTs' sense of preparedness and teaching efficacy. Indeed, half of

the PSTs felt that the school was neither sufficiently prepared nor sufficiently resourced to support PSTs learning the work of teaching. The challenge of closing the gap between theory and practice has led to PSTs' desire to have more time in the mathematics methods course, as well as extra time in the practicum.

It is hoped that the findings from this study concerning PSTs' current perceptions about preparedness, combined with the suggestions for improving their levels of preparedness, will contribute to improvements in ITE and teaching quality in Saudi Arabia.

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